The effect of yoga on respiratory functions, symptom control and life quality of asthma patients: Randomized controlled study

1.14.2019

#### **Abstract**

**Objectives:** This study was conducted to find out the effect of yoga applied to asthma patients on the patients' respiratory functions, symptom control and quality of life.

**Methods:** The study was conducted between December 2017 and October 2018 as a randomized experimental study with control group and pre-test post-test practice. The universe of the study consisted of 440 asthma patients who had records at the Chest Diseases polyclinic of a university hospital and a state hospital. The sample of the study consisted of a total of randomly chosen 112 asthma patients, 56 in the experimental group and 56 in the control group, who met the research criteria and who agreed to participate in the study. Personal Information Form', 'Respiratory Functions Monitoring Form', 'Asthma Control Test (ACT)' and 'Asthma Quality of Life Scale (AQLQ)' were used to collect the data

**Results:** In the intragroup comparison of average pre-test and post-test scores of respiratory function and ACT and AQLQ total and sub-dimension scores of the patients in the experimental and control group, the difference was found to be statistically significant (p<0.05). In addition, post-test score averages were found to increase in the experimental group, while they were found to decrease in the control group.

**Conclusion:** It was found that yoga influenced respiratory functions, symptom control and quality of life positively in asthma patients.

### 1.Introduction

Non-pharmacological treatment methods are as important as pharmacological treatment in asthma patients in order to take symptoms under control and to prevent the frequency of exacerbation <sup>1--7</sup>The use of traditional and complementary medicine, which is a non-pharmacological treatment method, is gradually becoming more important in asthma patients<sup>8-11</sup> There are various studies conducted in the world which show that yoga provides symptom control and increases respiratory functions and quality of life in asthma patients<sup>5,12-15</sup>

While there are studies conducted with yoga on different patient groups in Turkey, no studies have been found on asthma patients specifically. <sup>14-16</sup> For this reason, it was thought that studies are needed which will prove the effect of yoga practices in preventing and controlling symptoms of asthma patients and which will contribute to nursing literature.

**Main purpose:** This study was conducted to find out the effects of yoga applied to asthma patients on the patients' respiratory functions, symptom control and quality of life.

## The hypotheses of the study

H<sub>0</sub>: Yoga does not improve breathing function, symptom control and quality of life

H<sub>1</sub>: Yoga improves the respiratory function of asthma patients.

H<sub>2</sub>: Yoga improves symptom control in asthma patients.

H<sub>3</sub>: Yoga improves the quality of life of asthma patients

## 2. Materials and Methods

## 2.1.Design and Setting

This study is a randomized experimental study with control group and pre-test post-test practice.

## 2.Sample

Randomization; A total of 120 patients who met the research criteria were divided into two groups by using simple random numbers table, and then the first group which was drawn by lot method was named as the experimental group.

Since 4 people from each group left while the study was being conducted, the study was completed with 112 people including two groups of 56 people

# 2.3.Data analysis

The data obtained from the study were assessed by using SPSS 17 program. Arithmetic mean, standard deviation, percentage Chi-square, t test for independent groups, t test for dependent groups, Mann-Whitney u test and Wilcoxon test were used in the statistical assessment of the data.

### 2.4. Ethical Considerations

Approval was taken from Atatürk University Faculty of Nursing Ethics Board (16/11/2017 dated 2017-10/2 numbered) and written permission was taken from the institution for the study. In addition, written and oral consents were taken from the individuals who participated in the study after the purpose of the study was explained.

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